

IN THE CLAIMS

Please amend the claims as follows:

1-22 (Canceled).

23 (Currently Amended): ~~Transparent~~ A manufactured article, ~~substrate~~ comprising:

a transparent substrate;

an antireflection coating on at least one face of the transparent substrate, ~~an antireflection coating,~~ said antireflection coating made of a stack of thin layers of dielectric material having alternately high and low refractive indices, wherein the stack comprises, in succession:

a high-index first layer, having a refractive index  $n_1$  of between 1.8 and 2.2 and a geometrical thickness  $e_1$  of between 5 and 50 nm;

a low-index second layer, having a refractive index  $n_2$  of between 1.35 and 1.65 and a geometrical thickness  $e_2$  of between 5 and 50 nm;

a high-index third layer, having a refractive index  $n_3$  of between 1.8 and 2.2 and a geometrical thickness  $e_3$  of between 70 and 120 nm;

a low-index fourth layer, having a refractive index  $n_4$  of between 1.35 and 1.65 and a geometrical thickness  $e_4$  of at least 80 nm,

wherein the antireflection stack uses, at least for its high-index third layer, silicon nitride or aluminium nitride to undergo a heat treatment of bending, toughening, or annealing.

24 (Currently Amended): ~~Substrate~~ The manufactured article according to Claim 23, wherein  $n_1$  and/or  $n_3$  are between 1.85 and 2.15, ~~especially between 1.90 and 2.10.~~

25 (Currently Amended): Substrate The manufactured article according to Claim 23, wherein  $n_2$  and/or  $n_4$  are between 1.35 and 1.55.

26 (Currently Amended): Substrate The manufactured article according to Claim 23, wherein  $e_1$  is between ~~5 and 50 nm, especially between 10 and 30 nm or between 15 and 25 nm.~~

27 (Currently Amended): Substrate The manufactured article according to Claim 23, wherein  $e_2$  is between ~~5 and 50 nm, especially between 10 and 35 nm and preferably less than or equal to 30 nm.~~

28 (Currently Amended): Substrate The manufactured article according to Claim 23, wherein  $e_3$  is ~~less than or equal to 120 nm and especially at least~~ between 70 and 75 Nm.

29 (Currently Amended): Substrate The manufactured article according to Claim 23, wherein  $e_4$  is greater than or equal to 80 nm and ~~especially less than or equal to 120 nm.~~

30-31 (Canceled).

32 (Currently Amended): Substrate The manufactured article according to Claim 23, wherein the high-index first layer and/or the high-index third layer are based on one or more metal oxides chosen from zinc oxide, tin oxide, and zirconium oxide, or based on one or more nitrides chosen from silicon nitride and aluminium nitride.

33 (Currently Amended): ~~Substrate~~ The manufactured article according to Claim 23, wherein the high-index first layer and/or the high-index third layer include a superposition of several high-index layers, ~~especially a superposition of two layers such as  $\text{SnO}_2/\text{Si}_3\text{N}_4$  or  $\text{Si}_3\text{N}_4/\text{SnO}_2$ .~~

34 (Currently Amended): ~~Substrate~~ The manufactured article according to Claim 23, wherein the low-index second layer and/or the low-index fourth layer are based on at least one of a silicon oxide, silicon oxynitride and/or oxycarbide, or on a mixed silicon aluminium oxide.

35 (Currently Amended): ~~Substrate~~ The manufactured article according to Claim 23, wherein the substrate is made of clear or bulk-tinted glass.

36 (Currently Amended): ~~Substrate~~ The manufactured article according to Claim 23, wherein light reflection on a side where the stack of thin layers is provided is reduced by a minimum value of 3 or 4% at an angle of incidence of between 50 and 70 degrees.

37 (Currently Amended): ~~Substrate~~ The manufactured article according to Claim 23, wherein a colorimetric response of light reflection on a side where the stack of thin layers is provided is such that corresponding  $a^*$  and  $b^*$  values in the ( $L^*$ ,  $a^*$ ,  $b^*$ ) colorimetry system are negative at an angle of incidence of between 50 and 70 degrees.

38 (Canceled).

39 (Currently Amended): Glazing A glazing including the manufactured article according to Claim 23, wherein ~~it is composed of the glazing comprises~~ the single transparent substrate provided, on one of its faces, with the multilayer antireflection stack and, on a second its other face[[,]] opposed to the at least one face either with no antireflection stack or also with a multilayer antireflection stack, or with another type of antireflection coating, or with a coating having another functionality of solar-protection, low-emissivity, antifouling, antifogging, anti-rain, or heating.

40 (Currently Amended): Glazing A glazing including the manufactured article according to Claim 23, ~~wherein it has~~ comprising:

a laminated structure in which ~~two glass substrates~~ the transparent substrate and a second transparent substrate are joined together using a sheet of thermoplastic, the ~~substrate being provided, on the opposite side to the join with the antireflection stack and the second transparent substrate being provided, on the opposite side to the join~~ sheet of thermoplastic, either with no antireflection coating, or also with an antireflection stack, or with another type of antireflection coating, or with a coating having another functionality of the solar-protection, low-emissivity, antifouling, antifogging, anti-rain, or heating, the coating having another functionality possibly also being on one of the faces of the substrates which are turned towards the thermoplastic joining sheet.

41 (Currently Amended): Glazing A glazing including the manufactured article according to Claim 23, ~~wherein it has~~ further comprising: a laminated structure with one[[,]] or more sheets of joining polymer, with wherein the antireflection coating is disposed on at least one of the ~~1 and 4~~ faces on the opposite side to the one or more sheets of joining polymer, and[[,]] a solar-protection-coating is in contact with the one or more sheets of

joining ~~polymer sheet or one of the joining sheets~~, a solar protection coating, especially one including two silver layers.

42 (Currently Amended): Glazing A glazing including the manufactured article according to Claim 39, wherein the ~~other~~ another type of antireflection coating is present and includes one of ~~chosen from~~ the following coatings:

a single low-index layer, having an index of less than 1.60 ~~or 1.50, especially about 1.35-1.48, especially based on silicon oxide;~~

a single layer whose refractive index varies through its thickness, ~~especially of the~~ including silicon oxynitride  $\text{SiO}_x\text{N}_y$  type, where x and y vary through its thickness;

a two-layer stack, comprising, in succession, a layer having a high index of at least 1.8, ~~especially made of~~ including at least one of tin oxide, zinc oxide, zirconium oxide, titanium oxide, silicon nitride or aluminium nitride, and then a layer having a low index, of less than 1.65, ~~especially made~~ including at least one of silicon oxide, oxynitride, or oxycarbide;

a three-layer stack comprising, in succession, a layer having a medium index of between 1.65 and 1.8 ~~of the~~ including silicon oxycarbide or oxynitride and/or aluminium oxycarbide or oxynitride type, a layer having a high index of greater than 1.9 ~~of the~~ including  $\text{SnO}_2$  or  $\text{TiO}_2$  type, and a layer having a low index of less than 1.65, ~~of the~~ including mixed Si-Al oxide or silicon oxide type.

43 (Currently Amended): ~~Process for obtaining~~ A method of making the glazing according to Claim 39, ~~wherein~~ including the steps of depositing the antireflection stack or stacks ~~are deposited by sputtering and~~ depositing the optional antireflection coating is

deposited by a sol-gel technique, by a pyrolysis technique of CVD or plasma CVD, by sputtering, or by corona discharge.

44 (Currently Amended): ~~Application of~~ A method of using the glazing according to Claim 39 ~~as including using the glazing as an interior or exterior glazing for buildings, as a planar or curved shop display cabinet or counter glazing, which may be curved, as a glazing for a vehicle side window, as a glazing for a vehicle rear window, as a glazing for a vehicle sunroof, as a glazing for a vehicle windscreen, or as a glazing for protecting objects of the a painting, or as an a glazing for an antidazzle computer screen, or as a glazing for glass furniture.~~

45 (New): A manufactured article comprising:

a transparent substrate;

an antireflection coating on at least one face of the transparent substrate having a stack of thin layers of dielectric material, wherein the stack comprises, in succession:

an intermediate index layer having a refractive index  $n_5$  of between 1.65 and 1.80 and a geometrical thickness  $e_{opt5}$  of between 50 and 140 nm;

a high-index layer having a refractive index  $n_3$  of between 1.8 and 2.2 and a geometrical thickness  $e_3$  of between 70 and 120 nm;

a low-index layer having a refractive index  $n_4$  of between 1.35 and 1.65 and a geometrical thickness  $e_4$  of at least 80 nm.

46 (New): The manufactured article according to claim 45, wherein the intermediate index layer is based on aluminium oxynitride.

47 (New): A manufactured article comprising:

- a transparent substrate;

- an antireflection coating on at least one face of the transparent substrate having a stack of thin layers of dielectric material, wherein the stack comprises, in succession:

  - a high-index first layer, having a refractive index  $n_1$  of between 1.8 and 2.2 and a geometrical thickness  $e_1$  of between 5 and 50 nm;

  - a low-index second layer having a refractive index  $n_2$  of between 1.35 and 1.65 and a geometrical thickness  $e_2$  of between 5 and 50 nm;

  - a high-index third layer having a refractive index  $n_3$  of between 1.8 and 2.2 and a geometrical thickness  $e_3$  of between 70 and 120 nm;

  - a low-index fourth layer having a refractive index  $n_4$  of between 1.35 and 1.65 and a geometrical thickness  $e_4$  of at least 80 nm,

- wherein the stack is configured to reduce light reflection by at least 3% at an angle of incidence of between 50 and 70 degrees, and

- wherein the stack is configured to produce a colorimetric response of light reflection on a side where the stack of thin layers is provided such that corresponding  $a^*$  and  $b^*$  values in the  $(L^*, a^*, b^*)$  colorimetry system are negative at an angle of incidence of between 50 and 70 degrees.

48 (New): The manufactured article according to Claim 47, wherein  $n_1$  and/or  $n_3$  are between 1.85 and 2.15.

49 (New): The manufactured article according to Claim 47, wherein  $n_2$  and/or  $n_4$  are between 1.35 and 1.55.

50 (New): The manufactured article according to Claim 47, wherein  $e_1$  is between 10 and 30 nm.

51 (New): The manufactured article according to Claim 47, wherein  $e_2$  is between 10 and 35 nm.

52 (New): The manufactured article according to Claim 47, wherein  $e_3$  is between 70 and 75 nm.

53 (New): The manufactured article according to Claim 47, wherein  $e_4$  is greater than or equal to 80 nm and less than or equal to 120 nm.

54 (New): The manufactured article according to Claim 47, wherein the high-index first layer and/or the high-index third layer are based on one or more metal oxides chosen from zinc oxide, tin oxide, and zirconium oxide, or based on one or more nitrides chosen from silicon nitride and aluminium nitride.

55 (New): The manufactured article according to Claim 47, wherein the high-index first layer and/or the high-index third layer include a superposition of several high-index layers.

56 (New): The manufactured article according to Claim 47, wherein the low-index second layer and/or the low-index fourth layer are based on silicon oxide, silicon oxynitride and/or oxycarbide, or on a mixed silicon aluminium oxide.



57 (New): The manufactured article according to Claim 47, wherein the substrate is made of clear or bulk-tinted glass.

58 (New): A glazing including the manufactured article according to Claim 47, wherein the glazing comprises the transparent substrate provided on a second face opposed to the at least one face either with no antireflection stack or with a multilayer antireflection stack, or with another type of antireflection coating, or with a coating having another functionality of solar-protection, low-emissivity, antifouling, antifogging, anti-rain, or heating.

59 (New): A glazing including the manufactured article according to Claim 47, comprising:

a laminated structure in which the transparent substrate and a second transparent substrate are joined together using a sheet of thermoplastic, the second transparent substrate being provided on the opposite side to the sheet of thermoplastic, either with no antireflection coating, or also with an antireflection stack, or with another type of antireflection coating, or with a coating having another functionality of the solar-protection, low-emissivity, antifouling, antifogging, anti-rain, or heating, the coating having another functionality possibly also being on one of the faces of the substrates which are turned towards the thermoplastic joining sheet.

60 (New): A glazing including the manufactured article according to Claim 47, further comprising: a laminated structure with one or more sheets of joining polymer, wherein the antireflection coating is disposed on at least one of the faces on the opposite side

to the one or more sheets of joining polymer, and a solar-protection-coating is in contact with the one or more sheets of joining polymer.

61 (New): A glazing including the manufactured article according to Claim 58, wherein the another type of antireflection coating is present and includes one of the following coatings:

a single low-index layer, having an index of less than 1.60;

a single layer whose refractive index varies through its thickness, silicon oxynitride  $\text{SiO}_x\text{N}_y$ , where x and y vary through its thickness;

a two-layer stack, comprising, in succession, a layer having a high index of at least 1.8 including at least one of tin oxide, zinc oxide, zirconium oxide, titanium oxide, silicon nitride or aluminium nitride, and then a layer having a low index, of less than 1.65, including at least one of silicon oxide, oxynitride, or oxycarbide;

a three-layer stack comprising, in succession, a layer having a medium index of between 1.65 and 1.8 including silicon oxycarbide or oxynitride and/or aluminium oxycarbide or oxynitride, a layer having a high index of greater than 1.9 including  $\text{SnO}_2$  or  $\text{TiO}_2$ , and a layer having a low index of less than 1.65, including mixed Si-Al oxide or silicon oxide.

62 (New): A method of making the glazing according to Claim 58, including the steps of depositing the antireflection stack or stacks by sputtering and depositing the optional antireflection coating by a sol-gel technique, by a pyrolysis technique of CVD or plasma CVD, by sputtering, or by corona discharge.

63 (New): A method of using the glazing according to Claim 58 including using the glazing as an interior or exterior glazing for buildings, as a planar or curved shop display cabinet or counter glazing, as a glazing for a vehicle side window, as a glazing for a vehicle rear window, as a glazing for a vehicle sunroof, as a glazing for a vehicle windscreen, as a glazing for protecting a painting, as a glazing for an antidazzle computer screen, or as a glazing for glass furniture.

64 (New): A manufactured article, comprising:

a transparent substrate;

an antireflection coating on at least one face of the transparent substrate, said antireflection coating made of a stack of thin layers of dielectric material having alternately high and low refractive indices, wherein the stack comprises, in succession:

a high-index first layer, having a refractive index  $n_1$  of between 1.8 and 2.2 and a geometrical thickness  $e_1$  of between 5 and 50 nm;

a low-index second layer, having a refractive index  $n_2$  of between 1.35 and 1.65 and a geometrical thickness  $e_2$  of between 5 and 50 nm;

a high-index third layer, having a refractive index  $n_3$  of between 1.8 and 2.2 and a geometrical thickness  $e_3$  of between 70 and 120 nm;

a low-index fourth layer, having a refractive index  $n_4$  of between 1.35 and 1.65 and a geometrical thickness  $e_4$  of at least 80 nm,

wherein the antireflection stack uses silicon nitride or aluminium nitride for at least one of the high-index layers to undergo a heat treatment of bending, toughening, or annealing.